

# **Arizona Department of Transportation**

## **Response to the Request for Proposals for**

**202 MA 054 H882701C**

**SR 202L (South Mountain Freeway)**

**I-10 (Maricopa Freeway) – I-10 (Papago Freeway)**

**Public Private Partnership (P3) Design-Build-Maintain Contract**

**FLUOR®**

**GRANITE™**

**A**  
Ames Construction, Inc.®

**PARSONS  
BRINCKERHOFF**

**DBi**  
SERVICES  
GLOBAL LEADER IN INFRASTRUCTURE  
OPERATIONS AND MAINTENANCE

## A. Executive Summary

*After three decades of careful planning and public consultation, the South Mountain Freeway is on the verge of becoming a reality. When opened to traffic in 2019, the new freeway will provide increased economic opportunities, improved mobility and travel time savings, among other benefits. Connect 202 Partners is fully committed to a long-term partnership with ADOT consistent with your Legacy Vision, Mission and Values.*

Originally approved by voters in 1985, the 22-mile long South Mountain Freeway (the Project) is the third and final segment of the Loop 202 freeway (SR 202L). An integral element of the region's adopted multimodal transportation plan, the new freeway will add much needed transportation capacity in the Southwest Valley and Ahwatukee areas and help to alleviate traffic congestion throughout the southwestern and central Phoenix metro area.

Connect 202 Partners (Connect 202) offers ADOT a team of world-class developers, nationally-recognized design-builders, locally-based designers and highway maintenance services firms formed for the specific purpose of delivering the Project – the first P3 of its kind in Arizona and the largest single highway construction contract in the state's history. Our core team members' experience working together includes over \$6 billion in active transportation projects throughout the U.S.

### Connect 202's Approach Meets All Project Goals

<b>Improve safety</b> of the regional transportation system and implementing an effective project safety program throughout the life-cycle of the Project	<b>Safety is Our First Priority.</b> Our schematic design meets the requirements of the Basic Configuration with equal or better operational performance. We will utilize best practices to enhance work zone safety during construction. We have adopted Fluor's industry-leading safety programs for both the D&C and Maintenance periods and will enroll the Project in OSHA's Voluntary Protection Program (VPP).
Secure <b>quality design and construction</b> to optimize the operational life-cycle performance of the Project;	<b>Proven Quality Management Program.</b> Along with safety, integrity and teamwork; excellence – defined as delivering superior quality results – is one of our core operating principals. Our proven quality management program is compliant with ISO 9001:2015 and has been customized to meet ADOT's requirements.
Challenge and motivate Proposers to identify <b>cost savings through efficiency and innovation</b> and deliver the Project under budget	<b>Innovative Design.</b> Our schematic design has been optimized for performance, quality, safety and life-cycle costs. Our Proposal includes approved ATCs and numerous technical enhancements that yield substantial cost savings and improved operational efficiency. In addition, our optimized roadway geometry avoids significant Schematic ROW resulting in reduction in ADOT's ROW acquisition and relocation costs.
Successfully <b>accelerate delivery</b> of the Project through the use of the alternative delivery P3 process	<b>Timely Completion and Public Use.</b> The faster improvements are put into place, the earlier the public can take advantage of the Project's travel benefits. Connect 202's management approach achieves Substantial Completion in less than 4 years with the possibility for some segments to be open to traffic earlier.
<b>Maximize value</b> of ADOT's financial resources and pursue sustainable funding solutions	<b>Maximum Value for Money.</b> Our team comprises some of the most financially stable companies in the industry with a long history of standing behind our guaranteed price and schedule commitments.
Maintain <b>excellent public and Stakeholder relations</b> through an effective outreach program and efficient maintenance of traffic	<b>Effective Public and Stakeholder Relations.</b> We will implement best practices for effective public and Stakeholder relations in close cooperation with ADOT. Led by Phoenix-based Gunn Communications; our proven 'community-oriented' public involvement program utilizes a variety of techniques and strategies to engage and inform the public and affected Stakeholders.

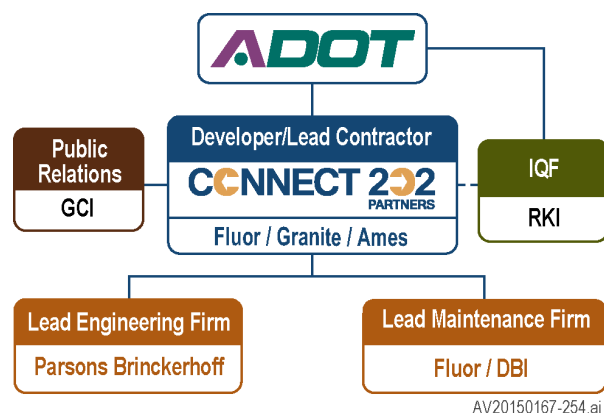
216



## Team Organization

Led by a consortium of Fluor, Granite and Ames; the Connect 202 team possesses the right experience; the necessary management and technical expertise; the requisite local knowledge and the financial strength to successfully deliver the Project.

Our team organizational structure provides for a more integrated Project implementation approach which facilitates enhanced cooperation between participants; better alignment across all phases of the Project; and a more holistic approach to achieving life-cycle cost and performance objectives.



## Core Team Members

**FLUOR**

Founded in Southern California in 1912, Fluor Corporation (NYSE:

FLR) is a FORTUNE 150 company with revenues of \$21.5B in 2014. The company is one of the world's largest and most financially stable engineering and construction companies. For the past twenty years, Fluor Corporation has consistently ranked #1 or #2 on *Engineering News Record (ENR)* magazine's list of 'Top Design-Build Firms'. Fluor Enterprises, Inc. (Fluor), the company's primary U.S. operating subsidiary, has been active in Arizona for over 50 years and presently maintains a global workforce in excess of 45,000 professional and craft personnel. Fluor's financial stability; its culture of collaborative problem-solving; and its willingness to stand behind its guaranteed price and schedule commitments make Fluor

the ideal partner to lead the successful implementation of this milestone project.

**GRANITE**

Granite Construction, Inc. (NYSE: GVA) is

one of the nation's largest highway contractors and construction materials producers in the U.S. Incorporated in 1922, the company is currently ranked #6 on *ENR*'s list of 'Domestic Heavy Civil Contractors'. Granite Construction Company (Granite), the company's primary operating subsidiary, has successfully completed more than \$18B in transportation design-build projects, including Arizona's first DB project, the I-17, Thomas to Peoria project. Currently, Granite is part of a consortium constructing the SR 202L Red Mountain DB project.



Ames Construction, Inc.®

Incorporated in 1963, Ames Construction, Inc. (Ames) is a privately-held heavy civil contractor.

Headquartered in Minnesota, Ames currently owns one of the nation's largest equipment fleets. Ames' Southwest Region, based in Phoenix, has been an integral part of constructing Arizona transportation infrastructure for more than 25 years, including 39 ADOT projects totaling more than \$680M. In 2014, Ames received the *Association of General Contractor's (AGCs) Marvin M. Black Excellence in Partnering Award*.

**PARSONS  
BRINCKERHOFF**

Parsons Brinckerhoff is a global leader in

highway planning and engineering. The company has more than 31,000 employees in 150 offices globally and has participated on some of the world's most notable engineering projects. The firm is currently ranked by *Roads & Bridges* magazine as the #1 'Road and Highway Design Firm'. Parsons Brinckerhoff and Fluor are currently working together on almost \$3 billion of U.S. DB transportation projects. Since establishing its office in Arizona in 1980, the firm has worked on numerous ADOT projects, including four major DB projects.



Founded in 1978, U.S.-based DBi Services has more than 1,500 experienced industry professionals operating from more than 60 locations worldwide. DBi Services presently maintains over 13,000 lane-miles of highway in North America via a combination of single activity contracts and comprehensive, performance-based “bundled services” contracts.

### Other Team Members



Headquartered in Phoenix, AZTEC is a multi-discipline engineering and environmental consulting firm with significant ADOT DB experience, including the SR 51 HOV and the SR 202L Santan HOV Widening projects – both with Parsons Brinckerhoff



Ranked by *ENR* as a Top 25 Highway Design Firm, Stanley provides planning, engineering and design, environmental services, intelligent transportation systems (ITS), traffic engineering, construction management and other services to ADOT. Stanley worked with Parsons Brinckerhoff and AZTEC on the SR 51 HOV and SR 202L Santan HOV Widening DB projects.



Kleinfelder is a leader in geotechnical services for the transportation industry with extensive experience in DB throughout the U.S., including the Dallas Horseshoe project with Fluor and Parsons Brinckerhoff and the I-15 CORE DB project in Utah with Fluor and Ames.



AMEC is a focused provider of Subsurface Utility Exploration and utility coordination services for ADOT projects. AMEC has partnered with Fluor on several projects throughout the U.S., including the SH 161 and Horseshoe DB projects in Texas.



Transtec is a certified-DBE/HUB pavement engineering firm. Since 1992, Transtec has completed more than 500 projects in pavement engineering worth more than \$15 billion in construction value throughout the U.S. The firm’s DB experience includes the DFW Connector in Texas with Parsons Brinckerhoff.



Founded in 1997, GCI has grown to become the largest full-service public engagement firm in Arizona. GCI specializes in the development and implementation of comprehensive public involvement and outreach plans for public sector clients, including ADOT, the City of Phoenix and the Maricopa Association of Governments. GCI is a certified-SBE/DBE/WBE firm.



RKI has provided innovative engineering solutions and quality management services and systems on roadway and bridge projects for over 45-years. RKI has extensive experience providing independent quality services to Fluor, Granite and Ames on large DB projects across the U.S.

**Maximum Value for Money.** *The Connect 202 team was organized more than two years ago. We have assembled a team of companies and key personnel who possess shared knowledge; established work processes; familiar project management tools and systems; and best-practices derived from prior experience working together on other successful DBM projects. Working together in our collocated office in Phoenix, we have invested more than 40,000 work hours into the development of our schematic design; the identification and mitigation of Project risks; and the thoughtful preparation of our implementation plans for the D&C and Maintenance periods.*

## Organization and Contents of the Proposal

Connect 202's Proposal is organized per the Instructions to Proposers (ITP) Exhibits 2 and 3. Volume 1 comprises our Technical Proposal. Volume 2 comprises our Financial Proposal. Volume 3 comprises our Price Proposal.

The information included therein is formatted and organized in accordance with Exhibit 6.

Our Project Development Plan is included in Volume 1 Section C. This section is further subdivided into three parts: Technical Approach, Project Delivery Approach, and Preliminary Quality Management Plan. For ease of reference, the required elements from Exhibit 2 for each part are identified in italics in brackets - e.g. Roadway and Interchange Geometry [4.1.1.2.b]. Our Schematic Design is submitted on roll plots in Appendix 1-A.

## Summary of Changes to the Proposer's SOQ

### Summary of Changes in Organization and Key Personnel

The following changes to Connect 202's Key Personnel have been approved by ADOT in accordance with ITP Section 2.10.

Position	Proposal	SOQ
Safety Manager	Daryl Lloyd	Gregg Johnson
Utility Adjustment Coordinator	Larry Westhouse, P.E.	Eric McCleary

### Additions to Connect 202's Team

Connect 202 has added Raba Kistner Infrastructure (RKI) to the team for the role of Independent Quality Firm (IQF). RKI's qualifications are included with the Preliminary Quality Management Plan. Newell White, P.E., an employee of RKI, will assume

the position of Construction Independent Quality Manager. Newell's resume is included with the Preliminary Quality Management Plan.

## Summary of Management, Decision-Making, and Day-to-Day Operations Structure

Experience has taught us that one of the critical success factors of DBM project delivery is establishing a well-conceived management structure that 1) allows work to be managed effectively at the appropriate level of the organization and 2) integrates the design, construction and maintenance personnel in a cohesive manner. Connect 202's management structure achieves these objectives.

We have utilized this proven organizational approach effectively on similar DBM projects across the U.S; adapting the basic structure to address the specific management and technical requirements of the Project, including the prescribed reporting relationships.

Connect 202's DBM organization, staffed with highly experienced DBM professionals facilitates:

- A strong, collaborative partnership with ADOT personnel at multiple levels within the organization and across similar functions
- An efficient chain of command that encourages decision-making at the appropriate level (closest to the work)
- Focused attention to pre-construction activities, such as ROW acquisition, permitting and utility coordination
- Active design management closely coordinated with construction and maintenance

***Maximum Value for Money. Connect 202's Equity Members and Major Non-Equity Members each fully commit to provide the specified personnel, virtually all of whom participated actively in the development of our Proposal.***



- Engagement, management and control of subcontractors, including disadvantaged business enterprises (DBEs)
- Efficient allocation of construction resources
- Compliance with all environmental requirements and NEPA commitments
- Effective cost and schedule control
- Pro-active community relations and public outreach
- Superior quality performance outcomes
- Continuous performance improvement
- A safety-first culture dedicated to providing a safe workplace for our personnel, Project participants and the public

In the simplest terms, our management structure consists of three basic levels:

- 1) Executive Oversight and Quality Management
- 2) Project Management and Control
- 3) Production

Executive oversight is provided by an Executive Committee composed of senior executives from each of the Equity Members. The Executive Committee will provide strategic guidance to the project management team; assure the timely allocation of resources; participate in issues resolution; and provide direct oversight of the Quality Management Program. Connect 202's Quality Manager will report to a designated Executive Committee member.

During the D&C Period, Connect 202's Project Manager, Walter Lewis, P.E. will be the single point-of-accountability to ADOT and have overall responsibility for management and control of the Project. Critical management functions report directly to Walter, including design, construction, pre-

construction, ROW acquisition, construction, safety, public relations and business services.



*Walter Lewis (center) and Safety Manager, Daryl Lloyd (left) accepting the 2014 American Road & Transportation Builders Association's Contractor Safety Award for the 95 Express Lanes project.*

In addition, prior to the start of the Maintenance Period Connect 202's Maintenance Manager, Lee Pauls, P.E. will report directly to Walter. We have intentionally structured a flatter organization to promote rapid decision-making and timely resolution of issues.

To efficiently manage the implementation of design and construction activities, we subdivided the 22-mile alignment into four defined segments as depicted in the Volume I Section A. Our production-level organization is structured accordingly, with dedicated segment design, construction, safety and quality teams. This allows much of the work to progress in parallel using separate, but well-coordinated production teams. Design discipline leads have been assigned corridor-wide to assure a consistent design approach across all segments. Similarly, certain construction functions, such as traffic management, utility coordination,

**Maximum Value for Money.** Our Project Manager, Walter Lewis, P.E., recently led the successful delivery of the \$940M 95 Express Lanes P3 project in Virginia. The 29-mile project was completed ahead of schedule with more than 3.8 million safe work hours. Under Walter's leadership the project also exceeded its DBE goals by more than 50%.

environmental compliance and paving, will be managed as Project-wide activities.

Overlaying our hierarchical organizational structure is our proven Technical Work Group (TWG) approach. TWGs are composed of design, construction and maintenance personnel organized into small, multi-disciplinary teams tasked with developing innovative technical solutions and identifying risks, among other responsibilities.

This matrix approach to project execution creates specific focus groups to address the main technical components of the Project (Structures, Roadway, Traffic Management, Geotechnical, Drainage, Utilities, Signage/ITS and Aesthetics/Landscaping). Representatives from quality, safety, ROW acquisition, public relations and environmental compliance will also participate in the TWG process.

The majority of our management and supervisory personnel are long-time Arizona residents with significant ADOT experience, including the entire design management team and technical discipline leads, public relations team, DBE/OJT outreach and compliance staff, environmental compliance, utility coordination and the majority of our field supervisory personnel. However, we also understand the importance of bringing an experienced team of experts who have executed similar large DBM projects. Many of our Key Personnel and a number of support staff have recently been involved in delivering major P3 transportation projects for other public agencies, including the Virginia DOT,

Colorado DOT, Denver RTD, Utah DOT and Infrastructure Ontario (CAN). Our team possesses an unrivalled combination of local knowledge and experience and large P3 and DBM project expertise.

### Summary of Connect 202's Project Development Plan

#### Technical Approach Summary

Connect 202 believes that good design, emphasizing life cycle costs, developed in conjunction with the contractors' planned means and methods is a key success factor in the DBM delivery method. Our innovative design, construction and comprehensive maintenance solutions are the product of our multi-disciplinary TWGs which involved extensive design development, planning and sanctioned outreach with key Stakeholders.



*A Typical Connect 202 Weekly TWG Meeting*

Our Technical Approach demonstrates:

- In-depth knowledge of ADOT design standards, requirements and procedures

***Innovation and Life-Cycle Cost Savings.*** *Connect 202's innovative design, construction and maintenance solutions were developed over the course of a highly focused, intensive collaboration process involving the key members of our technical and management team. Our schematic design supports the team's overall construction sequencing and staging plans and helps to minimize long-term maintenance requirements. Our technical approach meets or exceeds the RFP requirements while achieving the team's objective of lowering the overall life-cycle cost of the Project. This was accomplished through design optimization; efficient construction planning; and a proactive routine maintenance regime targeted towards performance management and asset preservation.*

- Awareness of local site conditions
- Adherence to the TPs, including all elements of the Basic Configuration
- An innovative and thoughtful approach to schematic design development
- Avoidance of Schematic ROW and protected sites
- Compliance with all environmental commitments
- Design solutions have been well-coordinated with construction sequencing and staging plans and planned maintenance operations
- Extensive, early engagement with utility owners and other Project Stakeholders
- Attention to whole life cycle performance
- Planning, staging and executing construction operations along multiple, distributed work fronts in a way that minimizes construction impacts without compromising safety
- Mobilizing, training and effectively managing a large workforce and the many consultants and subcontractors necessary to execute the Project
- Early identification and rapid resolution of issues between multiple Project participants and affected Stakeholders
- Proactively engaging and informing the public and affected communities impacted by the Project in an effective and timely way that fosters support for the Project and ADOT

### Project Delivery Approach Summary

The Project is the largest, most complex public highway project ever undertaken in Arizona. Its scale, location, regional significance, visibility and the delivery method, present a number of challenges:

- Establishing a well-integrated Project team, including ADOT, design, construction and maintenance personnel, to deliver the maximum operational life cycle performance
- Transitioning ROW services from ADOT and delivering timely ROW to support an efficient sequence of construction activities

Connect 202's Project Delivery Approach addresses these challenges with a well-conceived organizational structure, experienced management personnel, proven systems and work processes and a robust approach to risk management.

We recognize large transportation projects can generate controversy and impact the traveling public and adjacent communities. With 13 traffic interchanges, including several busy crossroads and a major system interchange at I-10 (Papago); traffic management and roadway safety will be critical to the success of the Project.

**Timely Completion and Public Use.** One of ADOT's and MAG's primary goals for the Project is to accelerate delivery to capture the travel benefits as soon as possible. Connect 202 has already established a temporary Project office to serve as the location for the preparation of our initial deliverables. We have developed working relationships with key Project Stakeholders that will facilitate timely agreement on required approvals. Our construction approach provides maximum flexibility allowing work to be re-sequenced as required to meet our schedule commitments.

**Efficient Traffic Management and Construction Sequencing.** Our delivery approach focuses on avoiding travel disruptions, wherever possible, and minimizing the impact of unavoidable disruptions. Connect 202's technical approach significantly reduces maintenance-of-traffic (MOT) issues and the need for prolonged lane closures along the Project corridor and within mainline I-10 (Papago) interstate, in particular. Our design solutions help to minimize traffic impacts to adjacent communities and simplify construction.



When construction in close proximity to live traffic is unavoidable, Connect 202 understands the critical importance of effective MOT around work zones and the need to provide a safe environment for both our construction personnel and the traveling public. Our traffic management approach utilizes a variety of public outreach tools and techniques to advise travelers of upcoming changes in temporary roadway conditions and to remain alert when approaching active construction areas.

Similarly, maintenance work will be scheduled to reduce the impact to roadway operations, including limiting lane closures and performing the work within the allowable off-peak hours. Providing a safe roadway for maintenance personnel and the traveling public is our first consideration in preparing all work plans.



### Preliminary Quality Management Plan Summary

DBM project delivery is a highly integrated and fast-paced process requiring participants to focus both on near-term goals and long-term performance objectives. Connect 202 offers ADOT a comprehensive Quality Management Plan (QMP) that effectively integrates design, construction and maintenance with ISO 9001:2015 compliant processes and state-of-the-art systems during all phases of the Project. We are providing an overarching QMP that integrates professional services, construction and maintenance.

Our QMP will provide a quality control / assurance framework of that promotes operational consistency, process ownership, effective reporting and control of documentation that supports a culture and expectation of quality for each phase of the Project. This will allow quality assurance personnel to easily validate and ADOT to verify the quality of each activity and component and initiate corrective action when necessary.

A key feature of our QMP is the deployment of a comprehensive and cohesive document management system (DMS). The system will contain daily inspection reports, test reports, material certifications, punch lists, as-built plans, mix designs, compliance information and other Project documents and is intended to serve as a single clearing house for the preservation and handover of quality-related documents.

We have implemented a robust process to verify that professional services work products, including design packages and ROW submittals, are independently checked and back-checked. Our IQF, RKI, will provide independent oversight of the construction work. Our familiarity with one another will drive higher performance from the outset of the Project. Connect 202's document control system and RKI's customized quality records management system are compatible, creating an efficient approach to record keeping and handover. Fluor's role as the managing member of both the Developer and the Lead Maintenance Firm will maintain operational consistency throughout the life of the Project.

**Quality Design, Construction and Maintenance.** *We believe strongly that achieving and effectively documenting quality results when the work is initially executed is critical to preventing unnecessary rework and meeting our schedule commitments. Our quality management organization led by Tom Marzolf, P.E., has been staffed with experienced quality managers who possess relevant expertise and recent similar large DB project experience.*

## Approach to Satisfying DBE and OJT Requirements

Connect 202 is committed to exceeding ADOT's DBE participation goals for the Project. As established members of the Arizona business community, we understand the importance of these goals and all other DBE requirements. We firmly believe that DBE firms bring local knowledge and necessary skills and resources that contribute significantly to successful Project delivery.

Our core team members have been nationally recognized for their efforts working with the DBE business community. Our DBE utilization plan provides a comprehensive process covering outreach, pre-qualification, procurement, training, compliance monitoring, reporting, mentoring and recognition.



*Connect 202 Team Participated in ADOT's 2014 DBE & Small Business Expo*

Shortly after the formation of our team, we established a website – [www.connect202partners.com](http://www.connect202partners.com) – where subcontractors and suppliers could go to register their interest in the Project. We have developed a subcontracting approach that will provide the maximum number of opportunities for DBE and local business participation. To date, Connect 202 has engaged with more than a thousand prospective business partners. Many of these are qualified DBE firms and local businesses. Further, Fluor, Granite and Ames have exceeded the DBE participation goals on all of their major DB projects. We will implement on this Project the same contracting processes and attention to maximizing DBE and local business participation.

Connect 202 Partners recognizes the value of on-the-job training (OJT) and is committed to exceeding ADOT's Business Engagement and Compliance Office (BECO) on the job training (OJT) goals of 51 trainees and 142,800 OJT training hours. Our program has been successful on previous projects with over 100 full-time employees having migrated through our program within the last three years. We will provide an OJT program designed to recruit, retain, and graduate women, minority, veteran and economically disadvantaged persons in fully attaining Journey-level status. Furthermore, we will take advantage of the opportunities presented by the Project to engage new workers in construction careers and enhance the skills of existing workers. This long-term, and highly visible project provides all of us – ADOT, Connect 202, and the community – the incentive to sustain and build resources into the future for the transportation and construction industries in the State of Arizona.

**DBE and Local Business Participation.** Major DBM projects require the involvement of a large, diverse group of consultants, subcontractors and suppliers. The participation of local contractors and material suppliers in the Project is a win-win for ADOT, Connect 202 and local businesses as these firms typically offer more competitive pricing and are knowledgeable about local requirements and working conditions.

## Conclusion

Connect 202 has assembled a team with the financial strength, skills, tools, resources, experience and relationships to successfully achieve the Project goals. We have invested over 40,000 hours of time during the Proposal period performing due diligence, developing our schematic design, engaging with key Stakeholders and preparing our work plans.

Through these efforts we have identified and mitigated a significant number of risks and identified future value-engineering and cost savings opportunities following award. Our plans are based on lessons learned from other ADOT DB projects adapted to address the Project's unique challenges.

By selecting Connect 202 to design, build, and maintain the Project, ADOT will have gained the advantage of a team that can deliver:

- A guaranteed price for all phases of the Project representing the maximum value for money
- A commitment to open the Project on time so the public can begin enjoying the travel benefits offered by the Project
- Consistency in management and performance throughout the life of the Project
- A pledge to establish a strong partnership with ADOT focused on communication, commitment, cooperation and continuous improvement

